DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection Bay Area Branch

690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020238 Address: 333 Burma Road **Date Inspected:** 07-Feb-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Oiu Wei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG COMPONENT**

Summary of Items Observed:

On this day Caltrans OSM Quality Assurance (QA) Inspector Subhasis Bera was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

In process Inspection

Bay#14

This QA Inspector observed the following work in progress:

SMAW in the 2G position for the OBG Segment 14W, weld No.DP3176-001-204. The welder is identified as #067707.ABF QC is identified as Mr. Shao Jian Yuan. The welding variables recorded by QC appear to comply with WPS-B-P-2212-Tc-U4b-FCM-1. The welding variables were recorded at, Amperage 224, volts 24.3. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 14W, weld No.DP3176-001-208. The welder is identified as #037779.ABF QC is identified as Mr. Shao Jian Yuan. The welding variables recorded by QC appear to comply with WPS-B-P-2212-Tc-U4b-FCM-1. The welding variables were recorded at, Amperage 229, volts 24.7. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 14W, UT repair weld No.SEG3020D-052. The welder is identified as #066398. ABF QC is identified as Mr. Wang Jian Hua. The welding variables recorded by QC appear

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to comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The weld repair report is identified as CWR2734. The welding variables were recorded at, Amperage 237, volts 23.7. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 14W, weld No.DP3174-001-034. The welder is identified as #067904. ABF QC is identified as Mr. Sen Jian. The welding variables recorded by QC appear to comply with WPS-B-P-2212-Tc-U4b-FCM-1. The welding variables were recorded at, Amperage 223, volts 25.The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 14W, weld No.DP3174-001-021. The welder is identified as #067707. ABF QC is identified as Mr. Sen Jian. The welding variables recorded by QC appear to comply with WPS-B-P-2212-Tc-U4b-FCM-1. The welding variables were recorded at, Amperage 235, volts 25.5. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 2G position for the OBG Segment 14W, UT repair weld No.SEG3020X-010. The welder is identified as #045246. ABF QC is identified as Mr. Xiao Jun Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-2G(2F)-FCM-REPAIR-1. The weld repair report is identified as CWR2659. The welding variables were recorded at, Amperage 232, volts 24.7. The In-process SMAW appears to be progressing in compliance with approved contract documents.

During Quality Assurance random in-process observations of the assembly of Orthotropic Box Girder (OBG) segments 14W at bay#14, this Quality Assurance Inspector (QA) discovered the following issues that the ZPMC has deviated from the approved weld joint design without the Engineers approval. ZPMC has changed the bevel of Complete Joint Penetration (CJP) butt joint joining between deck plate Diaphragms. According to the drawing WD 72 the bevel should be at one side of this joint at X4881D. This QA inspector informed to ZPMC QC Mr. Qiu Wen and ABF QA Mr. Sen Jian to rectify the weld joint according to the approve shop drawing.

This QA inspector did not generate any incident report on this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





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Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera, Subhasis	Quality Assurance Inspector
Reviewed By:	Dsouza, Christopher	QA Reviewer